UNITE REPORT

unite

Incidents reported to the Health and Safety Executive

Lack of investigation

2001 - 2007

FOREWORD

Unite believes the health, safety and welfare of its members is the highest priority, and remains committed to negotiating a healthier and safer working environment for members. Improving the health, safety and welfare of members, their families and friends is at the forefront of Unite's campaigning strategy.

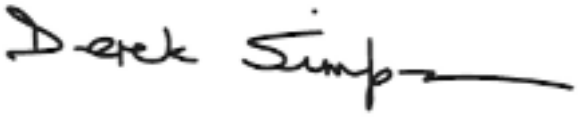
Unite has commissioned the Centre for Corporate Accountability (CCA), to carry out research into the Health and Safety Executive's (HSE) record of investigations during most of the last decade. This report adds weight to the argument that the HSE is seriously under-funded, with the result that workers' health and safety is seriously undermined.

Unite has been, and will continue to be, the leading union campaigning for more effective health and safety legislation to ensure better working conditions, real accountability of employers and increased benefits for those who have been injured or made ill by work. Unite has led the long campaign to introduce corporate manslaughter laws, and will continue to fight to make company directors and senior management truly accountable.

Unite has put considerable pressure on the Government to ensure the HSE has adequate funding, and it can be seen that this has now begun to take effect, with 40 new inspectors recruited in 2008. However this is nowhere near the 100% increase in the number of HSE inspectors that Unite believes is needed.

Unite activists are bearing the strain caused by such low levels of operating inspectors, and they are continually expected to police their own workplaces. However they are doing a great job, reducing accident rates by half compared to non-unionised workplaces, and Unite will continue the campaign to secure new and improved legal rights for safety reps.

This report highlights the need for the Government to admit that the HSE needs more money, more resources, and more inspectors, and address the problem accordingly. We believe the most fundamental right for workers is that they return home from work to their families, healthy and safe.



Derek Simpson
Joint General Secretary
Unite the union

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CHAPTER ONE

BACKGROUND TO THE REPORT

This report examines incidents reported to and investigated by HSE over a six year period (2001/2 and 2006/7). It examines levels of investigation – numbers and rates – of major injuries, over three day injuries, injuries to the public and dangerous occurrences. It breaks this examination down to look at the levels of investigation by year, sector, region, kind of injury (or dangerous occurrence) and cause of injury.

The issue of investigation levels – the central concern of this report - is a crucial one, because unless the HSE investigates an incident, it cannot know whether the injury or dangerous occurrence was caused by a health and safety failure .The HSE therefore cannot determine whether:

- any action should be taken to rectify the failures (through advice, or by imposing an improvement or prohibition notice) to ensure the injury or dangerous occurrence is not repeated; and/or
- to prosecute an organisation or individual for a health and safety offence.

Therefore, a decision not to investigate can result in failures both in relation to prevention and in securing criminal accountability, where appropriate.

How does HSE know about incidents?

Employers and others have an obligation under the Reporting of Injuries, Diseases and Dangerous Occurrences 1995 (RIDDOR 95) to report certain kinds of injuries and incidents either to the Health and Safety Executive (HSE) or to local authorities (LAs). Whether the injury needs to be reported to the HSE or to LAs depends on the activity that was undertaken by the premises where the injury took place.[1] In summary, injuries relating to the construction, manufacturing, agricultural, energy and mining sectors should be reported to the HSE. Whilst most injuries relating to the service sector should be reported to local authorities, a sizeable section should be reported to the HSE. The incidents that should be reported are:

- a 'major injury' to a person at work, arising out of, or in connection with the work.[2] There are particular kinds of serious injuries that the regulations define as 'major' (see box 1., p.5);[3]
- an 'over-three day' injury to a worker. These are injuries where a person at work is injured in an 'accident' arising out of the work, and is unable to continue with the work which he/she might reasonably be expected to do, for more than three consecutive days (excluding the day when the injury took place),.[4]
- an injury to a member of the public. These are either (a) injuries as a result of an 'accident' in connection with work that require *immediate* hospital treatment[5], or (b) 'major injuries' arising from work in a hospital;[6]

[1] See, The Health and Safety (Enforcing Authority) Regulations 1998, http://www.opsi.gov.uk/si/si1998/19980494.htm
[2] Section 3(b), The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR 1995)
[3] There are exemptions where certain incidents do not need to be reported: certain kinds of road traffic accidents involving people traveling in the course of their work, which are covered by road traffic legislation; accidents reportable under separate merchant shipping, civil aviation and air navigation legislation; and accidents to members of the armed forces.
[4] Section 3(2)
[5] Section 3(c)
[6] Section 3(d)

- a 'dangerous occurrence', as set out in a schedule to the regulations.[7] These are particular kinds of incidents, set out in the regulations, and which are considered to 'have a high potential to cause death or serious injury'[8], even though no such death or injury actually occurred;
- certain kinds of industrial diseases;[9]
- particular kinds of gas incidents that result in death or major injury.[10]

This report looks at the first four kinds of incidents (i.e. not gas incidents or cases of ill health), and only those incidents that have been reported accurately to the Health and Safety Executive. It does not concern itself with those injuries that are reported to Local Authorities (i.e. incidents reported by certain kinds of service sector premises).

Level of Reporting

The injuries reported to the HSE only represent a proportion of the total number of injuries that actually take place. The HSE acknowledge that 'non-fatal injuries are substantially under-reported,' estimating that 'just under half of all such injuries to employees are actually reported, with the self-employed reporting a much smaller proportion.'[11] The most recent research suggests that 41% of major injuries and 25% of over three day injuries are reported.[12] There is no data on the level of under-reporting of dangerous occurrences and injuries to members of the public. Both are likely to be at least as significantly under-reported – and probably even more so.

This under-reporting needs to be kept in mind since it means that the percentage of *actual* major injuries investigated is around 40% of the level set out in this report (so, rather than 10.5% of major injuries to workers being investigated, only about 4% are actually investigated, see table 1) and the level of over-three day injuries is 25% of the level set out in this report (so rather than 2%, it would be about 0.5% - link to table).

What this report provides information on is how many incidents that the HSE knew about, but then chose to – or not to - investigate.

Methodology

The statistical information in this report is based upon an analysis of 15 sets of data. These data sets were contained in separate electronic spreadsheets, or excel files. Of these:

- 11 files provided details of each and every injury to a worker or member of the public both reported and reportable[13] to the HSE between 1 April 2001 and 31 March 2007;

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[7] Section 3(e)
[8] http://www.hse.gov.uk/statistics/sources.htm#riddor
[9] Section 5
[10] Section 6
[11] http://www.hse.gov.uk/statistics/sources.htm#riddor. The estimations of under-reporting are made by comparing the numbers of reported incidents with the numbers of injuries reported in the Labour Force Survey.
[12] This was research done by the University of Liverpool for the HSE. They identified patients attending the Royal Liverpool University Hospital (RLUH) who had work-related accidents to workers reportable under RIDDOR. These were matched with cases reported to the HSE to determine how many were actually reported. It found that 24 out of 58 major injuries (41%) were **investigated reported?,** and 41 out of 166 over-three day injuries (25%) were reported (including those on 3 days of lesser duties) . See http://www.hse.gov.uk/research/rrpdf/rr528.pdf
[13] Not all incidents reported to the HSE are in fact reportable to them. Some do not fit in with the reportability criteria; whilst others should be reported to local authorities.

- 1 file provided information on the number of dangerous occurrences between 1 April 2001 and 31 March 2006; and
- 3 files provided information on each incident that was subject to investigation.

In the excel files, each incident had the following types ('fields') of information:
- the year of the incident;[14]
- the location of the incident (by region);[15]
- the industrial sector in which the incident occurred.[16]

In relation to each injury, the following further information was provided:
- the employment status of the injured person (employee, member of the public etc);
- the severity of injury (over-three day or major);
- the 'nature' of the injury (amputation, asphyxiation etc);
- the 'site' of injury (which part of the body was involved);
- the 'kind' or cause of injury (fall, contact with moving machinery etc).

The CCA analysed the data by 'searching' these different fields contained in the excel files.

In the course of the analysis, the CCA noticed that the levels of investigation in 2005/6 and 2006/7 appeared to be significantly lower than expected – in fact, suggesting that only 5% of reported worker major injuries were investigated. The CCA therefore contacted the HSE to ask it to clarify the accuracy of the data it had provided. The HSE then informed the CCA that the files it has sent to the CCA containing data on investigated incidents had not included a category of incidents that were inaccurately keyed in by its inspectors but were considered by the HSE to have been investigated.[17] This additional data was then sent to the CCA. The final analysis set out in this report includes this additional data.

Obtaining the Data

Obtaining this data from the HSE proved to be extremely difficult.

The CCA first requested information on investigation levels in an e-mail to the HSE on 20 February 2007 - which was part of a wider request for information in table form on prosecution levels and enforcement notices. On 28 March, the HSE agreed to provide this information, in May, for £1,400. The CCA sent the money to the HSE.

On 8 May, however, the CCA was suddenly told that no work was going to be done until the HSE board had first considered whether providing this information was a good use of HSE resources.

The CCA then withdrew its request for information on prosecution levels and enforcement notices. Only its request on investigation levels remained. However, on 25 May, the HSE

[14] HSE uses the financial year when analysing its data (1 April to 31 March).
[15] In many of the files the HSE only provides local authority data. As a result the CCA had to convert manually data from each local authority into its appropriate region.
[16] In many of the files, the HSE only provides the specific industrial sector, and the CCA had to trace manually each of these back to the wider industrial grouping that it belonged.
[17] When an incident is investigated, HSE inspectors should click on the field "Open- Investigation" and when the investigation is completed click on "Closed–Investigation" complete". There is however a third field "Closed-complete" which has been used by many inspectors.

wrote to the CCA to say that providing the requested tables on investigation levels would involve 'disproportionate use of resources.' The HSE returned CCA's cheque.

The next day, the CCA made a new request for information. Instead of asking for information in table form (which required HSE staff to undertake additional work), it asked for details of each RIDDOR incident investigated by the HSE to be provided in a simple excel file. This is a more straightforward request as it only requires data to be extracted from the HSE's main database. On 25 June, the HSE agreed to provide this information, for years from 2001/2 onwards.

On 3 August, the HSE provided this data. However, at the same time, the HSE told the CCA that it could not provide it with data on numbers of reported incidents to the HSE – data that would allow it to make a comparison between the number of incidents reported and the number of incidents investigated. The HSE said that it only had data on the numbers of reported incidents to both the Health and Safety Executive and to Local Authorities – and could not separate out incidents reported to the HSE alone.

The CCA then called HSE's statistical unit anonymously and was told that the HSE *did* in fact hold this data and it could be extracted. In October, HSE officials finally accepted that it could provide HSE RIDDOR data, which was sent to the CCA in November 2007 – allowing the CCA to start working on analysing the data.

The length of the process from the initial request for information to finally receiving that information was nine months.

Accuracy of the analysis in this report

The CCA undertook work analysing the data in December 2007, and extracting it into tables. On 24 April, the CCA sent a copy of all the tables that are included in this report to the HSE, asking for it to confirm that the information was correct. In e-mails of 9th and 15th May, the HSE confirmed that, from the checks that it has undertaken, it had not found any errors in the tables.

Box 1: **'Major injuries' as defined in RIDDOR 1995**

1. Any fracture, other than to the fingers, thumbs or toe
2. Any amputation.
3. Dislocation of the shoulder, hip, knee or spine.
4. Loss of sight (whether temporary or permanent).
5. A chemical or hot metal burn to the eye or any penetrating injury to the eye.
6. Any injury resulting from an electric shock or electrical burn (including any electrical burn caused by arcing or arcing products) leading to unconsciousness or requiring resuscitation or admittance to hospital for more than 24 hours.
7. Any other injury
   (a) leading to hypothermia, heat-induced illness or to unconsciousness,
   (b) requiring resuscitation, or
   (c) requiring admittance to hospital for more than 24 hours.
8. Loss of consciousness caused by asphyxia or by exposure to a harmful substance or biological agent.
9. Either of the following conditions which result from the absorption of any substance by inhalation, ingestion or through the skin—
   (a) acute illness requiring medical treatment; or
   (b) loss of consciousness.
10. Acute illness which requires medical treatment where there is reason to believe that this resulted from exposure to a biological agent or its toxins or infected material.

CHAPTER TWO

HSE'S POLICY ON INVESTIGATION

Background

HSE's policy towards investigating injuries and other incidents has over the years been determined by a number of overlapping criteria:

- HSE's overall level of resources, especially the number of HSE inspectors, which has been declining in recent years (see table 2 below);
- the amount of time that inspectors should spend on preventative inspections rather than on investigations into reported injuries and other incidents;
- the recommendations made by House of Commons Select Committees in 1999 and 2004;
- the new emphasis placed by the HSE upon forms of intervention other than inspection and investigation.

The level at which the Government provides resources to the HSE means that it is unable to investigate every reported incident. Indeed, in 2004, the HSE claimed that even if the Field Operations Directorate – the main part of the HSE involved in manufacturing, construction, agriculture, service sector, and so on – undertook investigations to the exclusion of all other activities, it would still only be able to investigate 30% of all reported incidents.

In addition, within its limited budget, the HSE has to consider its other main area of intervention – 'preventative inspections' - which have, historically, always been given a higher priority by the HSE than reactive investigations. The debate about investigation levels therefore has been couched not just in terms of what percentage of reported incidents should be investigated, but also the relative time that the HSE should spend on investigations vis-à-vis preventative inspections. In 1997/8, the balance was 35% investigations to 65% inspections; in 2002/3, after Select Committee pressure, this became 50:50, and the HSE has since then been aiming for the figure to be 40:60.[18] This 'balance' has, in recent years, become more difficult to measure precisely, as the HSE has increased forms of intervention other than inspection and investigation. It is not known what proportion of an HSE's inspector time is spent on these other activities.

Table 1: Numbers of operational inspectors in the HSE

DIRECTORATE/DIVISION	Apr 03	Apr 04	Apr 05	Apr 06	Apr 07	Dec 07	% Decrease
Field Operations Directorate (FOD)	916	844	818	752	747	680	26%
Hazardous Installations Directorate (HID)	374	388	363	366	369	363	3%
Nuclear Directorate (ND)	185	181	173	167	178	169	8%

Source: Work and Pensions Committee, 21 April 2008[19]

[18] Para 7 of 'Revision of the HSC RIDDOR Incident Selection Criteria' A paper to the HSC, 7 Dec 2004

[19] 'The role of the Health and Safety Commission and the Health and Safety Executive in regulating workplace health and safety' 3rd Report, Para 99.

HSE's Investigation Policy, pre-2001

Until 2001, HSE used a rather vague set of criteria to determine which incidents to investigate. These were:

- the extent of the breach of the law;
- the severity of the harm done;
- the company's 'safety' record;
- whether an investigation would produce lessons that could be applied elsewhere;
- whether an investigation would be a useful deterrent;
- the level of public concern; and
- where appropriate, the likelihood of a successful prosecution[20].

As a result of criticism in 2000, the HSE told the Select Committee on the Environment, Transport and the Regions that it would review its investigation criteria. The Select Committee welcomed this, stating: 'we are concerned that there are potentially many injuries which it should have investigated'. However, it went on to say that:

> 'we continue to have some concerns about how the criteria which determine which injuries will be investigated, are applied by HSE inspectors. Decisions in the past appear to have been unduly dictated by availability of resources. While the HSE needs to operate within its resource limitations, we believe that it should develop more detailed guidance for inspectors. In particular, more thought should be given to a) how to 'weight' the criteria, since some should surely have more influence than others and b) whether some categories of very serious injuries should automatically trigger an investigation in the same way that fatalities do. Such a system would mean that decisions on whether to investigate would be more rigorously based and more transparent which would ultimately lead to a greater consistency in application between inspectors. We urge the HSE to use its review to address these issues.'[21]

In its response to the Select Committee report, the HSE undertook to increase the number of investigations by about 32% - from 6.8% of all reported incidents in 1999/00 to 10% in 2001/02.

[20] Para 31, Select Committee report
http://www.parliament.the-stationery-office.co.uk/pa/cm199900/cmselect/cmenvtra/31/3102.htm
[21] para 35.Select Committee report

2001: New Piloted Investigation criteria

In 2001, the HSE piloted new criteria [‘2001 Criteria’] for determining which incidents (other than death) it was going to investigate (see box 1).

Box 1: 2001 Piloted Criteria

1. The following injuries should be investigated whether to worker or member of the public, irrespective of cause:
   - all amputations of digit(s) past the first joint;
   - amputation of hand/arm or foot/leg;
   - serious multiple fractures (more than one bone, not including wrist or ankle);
   - crush injuries leading to internal organ damage e.g. ruptured spleen;
   - head injuries involving loss of consciousness;
   - burns and scalds covering more than 10% of the surface area of the body;
   - permanent blinding or one or both eyes;
   - any degree of scalping; and
   - asphyxiations.
2. Incidents which result in a RIDDOR-defined major injury in the following categories;
   - workplace transport incidents;
   - electrical incidents;
   - falls from a height of greater than 2 metres; and
   - any incident which arose out of working in a confined space
3. All reports of cases of occupational disease

In addition, the criteria said that inspectors should investigate:

1. all incidents likely to give rise to serious public concern. Inspectors were told to give ‘particular consideration to incidents involving children, vulnerable adults, and multiple casualties where the outcome of potential outcome of breach is serious.’
2. any incident where there is likely to have been a serious breach of health and safety law

And the new policy said that inspectors could *also* investigate:

1. any incident which contributes to an HSC/E priority programme e.g. manual handling.
2. any incident which involves new process or plant which could enhance HSE's knowledge

The new criteria set out a series of conditions that would justify a decision not to investigate an incident that otherwise satisfied the criteria. These were:

- inadequate resources/other developing priorities
- impracticability for investigations e.g. unavailability of witnesses or evidence or disproportionate effort would be required; or
- no reasonable practicable precautions available for risk reduction.

2003: New Piloted Criteria in the North West

By 2003, however, the HSE were concerned that the introduction of these new criteria had resulted in:

> 'the time spent on reactive work in Field Operations Directorate increasing from 35% in 1997/8 to 50% in 2002/3. ... HSE took the view that this balance was wrong as HSC/E's primary aim is prevention and that HSE should be aiming to reduce the figure for reactive work to 40%.'[22]

As a result the HSE piloted a new set of criteria in the North West region from July 2003 ['2003 Criteria'] with the purpose of reducing the 'numbers of incidents selected for investigation by about 40%.'[23] The most significant change between the new 2003 criteria and the 2001 criteria was that the 2003 criteria totally removed all discretion that HSE inspectors had to investigate incidents simply because they were likely to have been the result of a serious breach of the law, involved areas of priority for HSE or could enhance HSE's knowledge. Another significant change between the two criteria was that the new 2003 criteria restricted the kinds of injuries that inspectors were expected to investigate. This meant that:

- rather than requiring 'all amputations of digit(s) past the first joint' to be investigated, the piloted criteria said that only those amputations of digits past the first joint 'where the incident involved potential for more than one finger or for hand/arm amputation' need to be investigated;
- rather than requiring all 'serious multiple fractures (more than one bone, not including wrist or ankle') from whatever cause to be investigated, the piloted criteria stated that it would only be necessary to investigate such injuries if they result from a 'crush injury' or they were associated with 'workplace transport' or 'falls from height'.
- scalpings would no longer require investigation.
- rather than requiring the investigation of 'any incident which arose out of working in a confined space', the piloted criteria said this would no longer be necessary unless it resulted in 'asphyxiation' or other categories of injuries that requires investigation.

The 2003 criteria also created additional 'disqualifying' conditions, so that an investigation would *not* be necessary if

- the 'investigation is unlikely to achieve results (e.g. significantly improve, or secure sustained compliance)'; or
- it is a 'work-related road traffic incident' where HSE has no investigation role.

In addition, apart from where the incident is 'likely to give rise to serious public concern' or where there has been a 'dangerous occurrence with the potential for causing a number of deaths or major injuries', then an incident will be disqualified from investigation if either:

- the related breach of health and safety law is unlikely to have been serious; or
- investigation is unlikely to achieve results (e.g. significantly improve, or secure sustained compliance).

The new piloted 2003 criteria did however include a number of new types of incidents that required investigation. These were:

- any 'manual handling incidents resulting in sprains and strains and requiring admittance to hospital for more than 24 hours'; and

[22] Para 6 of 'Revision of the HSC RIDDOR Incident Selection Criteria' A paper to the HSC, 7 Dec 2004
[23] para 8, HSE paper

- dangerous occurrences with the potential for 'directly causing a number of deaths or major injuries or a large number of cases of occupational disease, severe human infection or illness'.

2004 Criteria

According to the HSE, the application of the new criteria in the North West resulted in a '70% drop in the numbers of incidents selected' for investigation – rather than the 40% decline sought.[24] Therefore a further set of revised criteria - which allowed inspectors some discretion to select incidents arising from HSE's priority topic hazards (i.e falls from heights) was then tested from December 2003 to June 2004 in the North West.

2004 Select Committee

In July 2004, the parliamentary Select Committee on Work and Pensions[25] again considered the work of the HSE and the issue of levels of investigation. In its evidence to the Committee, the HSE stated that increasing the number of investigations 'created conflict with the intention to maintain a largely preventive focus' and that they were now aiming to re-establish a 60:40 time ratio of proactive to reactive work. In December 2004, the HSE said that this had been achieved.[26]

Asked about the proportion of major accidents investigated, Mr Timothy Walker, Director General of the HSE at the time, said:

> 'We would not agree that it is too low a number. Not all accidents will benefit from an HSE investigation and we think we need to concentrate our investigation skills and experience both on those cases that are likely to lead to prosecution or where there is considerable learning involved either for that company or for other companies.'[27]

In response to this, in its report the Select Committee stated: 'this begs the question as to how, in the absence of an investigation, HSE can be confident that a case is unlikely to lead to prosecution or to have considerable learning involved.'[28] It concluded that it was 'concerned both at the low level of incidents investigated and at the low level of proactive inspections and recommends that resources for both are increased.'[29]

2005: Current criteria published

With the conclusion of the pilot period, in December 2004, the HSE submitted a paper to the HSC with a proposed final draft of new incident criteria for investigation. The HSE argued that due to the change between 2001 and 2004 in the ratio of time spent on inspections to investigations from 50:50 to 60:40, 'radical changes to the incident criteria are not required'.[30] It argued that criteria should simply be 'updated' to better reflect HSE's 'core and programme work' and a number of small textual changes were made. The current criteria are set out in the box below:

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[24] Para 8, HSE paper
[25] The HSC/HSE had moved from being part of the Department of Environment, Transport and the Regions to the Department of Work and Pensions
[26] para 10
[27] para 148. Work and Pensions Committee, Courth Report. http://www.publications.parliament.uk/pa/cm200304/cmselect/cmworpen/456/45602.htm
[28] para 149
[29] para 150
[30] para 11.

HSE's Current Criteria, 2005

HSE's current policy requires that investigation should only take place into a major injury if it is:

- an amputation of a hand, an arm, a leg, a foot and any digit(s) past the first joint;
- a fracture involving more than one bone, not including wrist or ankle;
- a crush injury leading to internal organ damage, e.g. ruptured spleen;
- a head injury involving loss of consciousness;
- a burn or scald covering more than 10% of the surface area of the body;
- a permanent blinding of one or both eyes;
- any degree of scalping;
- an asphyxiation;
- a back injury caused by handling, lifting, or carrying;
- suffered by an electrical fitter, or an HGV driver, or a storage handler, or certain others kinds of labourers when the injury involves a moveable ladder, an HGV vehicle, furniture stairs/steps, or a mobile scaffold;
- the result of a slip or trip where poor maintenance and/or control of contamination (including water) is likely to be a causal factor and the incident occurred inside a building;
- the result of workplace transport except those reported as resulting from collapse of a vehicle during maintenance;
- the result of an electrical incidents;
- the result of working in a confined space; or
- any incident 'likely to give rise to serious concern'.

In relation to over-three day injuries and dangerous occurrences, the HSE will only investigate them if they come within the category of being 'likely to give rise to serious concern.' In considering whether this is the case, the criteria says 'the views of the public at large not just those of an individual' should be considered and it is likely to include 'Incidents involving children, vulnerable adults, and multiple casualties where the outcome or potential outcome is serious' or 'dangerous occurrences with the potential for directly causing the death of anyone or major injuries to a number of people.'

CHAPTER THREE

SUMMARY OF FINDINGS

Overall Investigation levels in 2006/7
- only 10.5% of reported major injuries to workers investigated;
- only 1.2% of reported over-three day injuries investigated;
- only 25% of reported dangerous occurrences investigated (2005/6);
- only 2% of reported injuries to members of the public investigated.

Decline in overall investigation levels between 2001/2 and 2006/7

- major injuries to workers	18.3% to 10.5%	43% decline
- over-three day injuries:	3.8% to 1.2%	69% decline
- dangerous occurrences:	29% to 20% (2005/6)	31% decline
- member of the public injuries:	6.2% to 2%	68% decline

Major Injuries to Workers

By Sector: In 2006/7 the level of investigation ranged from 24.5% in the Agricultural sector to 5.3% in the services sector. In the construction sector – the sector with the most number of reported deaths - only 14.1% of major injuries were investigated – a reduction from 20% six years earlier

By region: In 2006/7, the level of investigation ranged from 14% in Scotland to 5.3% in London. Six years earlier the levels of investigation were 26% and 9% respectively.

Different kinds of injuries: In 2006/7, the kinds of major injuries that were **not** being investigated were:

- 62% of all amputations.	In 2001/2 it was 45%.
- 70% of all asphyxiations and poisonings.	In 2001/2 it was 46%.
- 78% of all burns.	In 2001/2 it was 64%.
- 57% of all electrocutions.	In 2001/2 it was 47%.
- 91% of all temporary or permanent blindness.	In 2001/2 it was 65%.

In relation to amputations, in 2006/7, the HSE did **not** investigate
- 1 amputation of the foot
- 2 amputations of the hand
- 3 amputations of a lower limb
- 10 amputations of toes
- 339 amputations of fingers

Different causes of injury: In 2006/7, the HSE did not investigate:

- 59% of all collapses.[31]	In 2001/2, it was 50%
- 50% of all explosions.[32]	In 2001/2, it was 31%
- 56% of all high falls (over two metres)	in 2001/2, it was 40%

[31] trapped by something collapsing or overturning
[32] Exposed to an explosion from igniting materials.

- 80% of all fires.[33] in 2001/2, it was 47%

Over-Three day Injuries

By Sector: In 2006/7 the level of investigation ranged from 9.5% in the Mining sector to 0.5% in the services sector. In the construction sector only 1.9% of injuries were investigated – a reduction of 50% from six years ealier.

By region: In 2006/7, the level of investigation ranged from 3.1% in Scotland to 0.5% in London. Six years earlier the levels of investigation were 7.6% and 1.4% respectively.

Dangerous Occurrences

By Sector: In 2005/6 the level of investigation ranged from 40% in the agricultural sector to 7% in the energy sector. In the construction sector only 23% of dangerous occurrences were investigated.

By region: In 2005/6, the level of investigation ranged from 32% in Scotland to 6% in London. Scotland's figures represents an increase from 25% five years earlier and in London it represents a decline from 16%.

By Kind: In 2005/6 only:
- 7 of 298 releases of biological agents likely to cause human infection or illness;
- 1 of 14 incidences of overturning of a tank resulting in dangerous substance release or fire;
- 1 of 10 fairground failures;
- 17 of 140 failures of breathing apparatus;
- 182 of 1,111 collapses or overturning of machinery etc;
- 7 of 42 scaffold collapses; and
- 24 of 140 floor or wall collapses (under construction)

were investigated

Major Injuries to the Public

By Sector: In 2006/7 the level of investigation ranged from 24% in the Manufacturing sector to 1.6% in the services sector. In the service sector (which accounted in 2006/7 for 97% of all reported injuries to the public) the level of investigation declined by 75% from 6.2% in 2001/2.

By region: In 2006/7, the level of investigation ranged from 2.8% in Scotland to 1.2% in London. Six years earlier the levels of investigation were 18.5% and 2.7% respectively. In Scotland this was a decline of 85% in the six year period.

[33] Exposed to fire or fumes from uncontrolled fire

CHAPTER FOUR

LEVELS OF INVESTIGATIONS INTO MAJOR INJURIES TO WORKERS

In this chapter, we consider the levels of investigation by the Health and Safety Executive (HSE) into major injuries to workers[34] which were reported (and were *reportable*) to the Health and Safety Executive in a six year period, 2001/2–2006/7.[35] As explained in the Introduction, the numbers of major injuries actually reported to the HSE represent about only 40% of those injuries that should be reported.

The chapter looks at the overall percentages of reported injuries investigated, as well as at levels of investigation by industrial sector, by region, by nature of injury (amputation, burn etc) and by cause of injury (fall, explosion etc). It particularly focuses on the most recent year for which data is available – 2006/7. It should be noted that in some tables there is a category of 'unknown'. This is due to HSE's excel files not providing any information on the industrial sector, or the region, or other relevant category of information.

Overall Trends in Investigation

Although the number of major injuries to workers has remained relatively stable between 2001/2 and 2006/7, Table 4.1 shows that the *percentage* of major injuries that were investigated has decreased from 18.3% to 10.5%; the *numbers* of actual injuries investigated decreased by almost a half from 4,176 to 2,320. Between 2005/6 and 2006/7, however, there was a slight increase in the level of investigation from 10.1% to 10.5%.

Table 4.1: Reported and investigated major injuries to workers, 2001/2 to 2006/7

	Nos Rep	Nos Inv	% inv
2001/2	22,769	4,176	18.3
2002/3	22,389	3,690	16.5
2003/4	22,447	3,228	14.4
2004/5	24,327	2,980	12.2
2005/6	22,973	2,330	10.1
2006/7	22,172	2,320	10.5

Trends in Investigation Levels by Industrial Sector

In different industrial sectors, there are significant differences in the levels of major injury investigation. Table 4.2 shows that in 2006/7, the levels of investigation ranged from 25% in Agriculture to 14% in the construction sector, and to 5% in the service sector.

Table 4.2: Reported and investigated major injuries to workers, by sector, 2006/7

	Nos Rep	Nos Inv	% inv
Agriculture	457	112	25
Mining	197	47	24
Manufacture	5,084	895	18
Construction	4,225	595	14
Energy	189	17	9
Service	12,020	643	5
Unknown		11	

But if the investigation rates vary across different sectors, Table 4.3 shows that the decline between 2001/2 and` 2006/7 in investigation levels has taken place in *all* sectors, including:

- from 42% to 25% in agriculture;
- from 48% to 24% in mining;
- from 27% to 18% in manufacturing,
- from 20% to 14% in construction;

[34] This comprises, employees, self-employed, trainees etc.
[35] Years are from 1 April of one year to 30 March of the next year

Table 4.3: Percentages of major injuries to workers investigated by sector, 2001/2 to 2006/7

	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7
Agriculture	42	38	40	31	24	25
Mining	48	48	46	37	30	24
Manufacturing	27	24	22	21	18	18
Construction	20	19	16	17	12	14
Energy	14	9	13	8	6	9
Service	9	8	6	5	5	5

Trends in Investigation Levels by Region

Table 4.4 shows how the level of investigation also varies significantly from one part of the country to another. In 2006/7, the level of investigation of major injuries in London was one third of the level in Scotland - 5% of all reported major injuries in London compared to 14% in Scotland. This despite the actual number of injuries reported in these two 'regions' being very similar.

Table 4.4: Reported and investigated major injuries to workers, by region, 2006/7

	Nos Rep	Nos Inv	% Inv
Scotland	2258	315	14
Midland	3942	484	12
York and North East	3487	405	12
North West	2677	230	9
Wales and South west	3285	239	7
East and South East	4481	324	7
London	2019	106	5
Unknown/ other	23	217	

Table 4.5 sets out investigation levels by sector in Scotland and London – the regions with the highest and lowest investigation levels (but very similar numbers of injuries). It shows that in both these regions, most injuries were reported in the manufacturing and construction sectors – but whilst 16% of construction injuries were investigated in Scotland, in London only 6% were investigated; and whilst 28% of manufacturing injuries were investigated in Scotland, only 16% were investigated in London.

Table 4.5: Reported and investigated major injuries to workers, by sector and by region, 2006/7

	Scotland			**London**		
	Nos Rep	**Nos Inv**	**% inv**	**Nos Rep**	**Nos Inv**	**% inv**
Agric	66	23	34.8	12	01	8.3
Mining	83	23	27.7	02	00	0.0
Manufacturing	433	119	27.5	164	26	15.9
Construction	484	79	16.3	558	32	5.7
Energy	25	04	16.0	10	01	10.0
Service	1167	67	5.7	1273	46	3.6

As we saw above, when looking at *trends* in investigations across sectors, the decline in the level of investigation over the six year period has taken place in all these regions, though the reduction has been greatest in East and South East with a reduction from 18% to 7%. Table 4.6 shows that, across this period, levels of investigation have decreased:

- in Scotland, from 26% of reported major injuries, to 14%;
- in the Midland from 20% to 12%;
- in York and North East from 20 to 12%;
- in the North West from 17 to 9%;
- in Wales and South West from 16% to 7%;
- and in London from 9% to 5%.

Table 4.6: Percentages of major injuries investigated, by region, 2001/2 to 2006/7						
	2001/2	**2002/3**	**2003/4**	**2004/5**	**2005/6**	**2006/7**
Scotland	26	15	14	13	13	14
Midland	20	17	16	14	13	12
York and North East	20	20	14	13	10	12
North West	17	17	11	1	9	9
Wales and South west	16	16	14	12	8	7
East and South East	18	17	12	11	6	7
London	9	10	8	5	6	5

Trends in Investigations into Different Kinds of Injuries

Tables 4.7 to 4.13 set out the extent to which different 'kinds' of injuries were investigated.

Table 4.7: Reported and investigated major injuries to workers, by kind of injury, 2006/7[36]

	Nos Rep	**Nos Inv**	**% Inv**
Electricity	40	17	43
Amputation	669	259	39
Asphyxiation, Poison	126	38	30
Burns	393	85	22
Concussion	246	55	22
Multiple	520	101	19
Loss of Sight	81	14	17
Contusion	649	95	15
Fracture	15,770	1,351	9
Laceration	1,531	137	9
Superficial	401	27	7
Sprain	328	20	6
Dislocation	1,097	51	5

Table 4.7 shows that investigation levels of any type/kind did not exceed 43%. Amongst what appears to be the most 'serious' of reported major injuries, investigation levels ranged from 43% of electrocutions, to 39% of amputations, to 30% of asphyxiations, to 22% of burns, to 19% of multiples injuries and to 17% of permanent/temporary loss of sight.

We can see from Table 4.8 that, in the six year period, there have been significant declines in the investigation of all six of these most serious injuries. Apart from amputations where the decline was *relatively* small (from 53% to 43%), most investigation levels have declined by a third to a half; investigations of loss of sight have more than halved.

Table 4.8: Percentages of major injuries investigated, by kind of injury, 2001/2 to 2006/7						
	2001/2	**2002/3**	**2003/4**	**2004/5**	**2005/6**	**2006/7**
Electricity	53	54	52	42	33	43
Amputation	55	53	49	43	33	39
Asphyxiation, Poison	54	57	38	34	21	30
Burns	36	32	29	24	20	22
Loss of Sight	35	28	21	16	9	17
Multiple	35	35	30	23	18	19

If we look in further detail at these six most serious injuries across different sectors for the most recent year, 2006/7, in Table 4.9, we find that there are significant variations.

- 51% of amputations in the manufacturing sector were investigated compared to 29% in construction and 20% in the service sector;
- 71% of asphyxiation and poisonings in manufacturing were investigated compared to 20% in construction and 15% in the service sector;
- 38% of blindings in the manufacturing sector were investigated, compared to only 17% in construction and 10% in the service sector

[36] This does not include categories of 'Natural Causes', 'other known', 'superficial' and 'blank'.

Table 4.9: Reported and investigated major injuries to workers, by kind of injury and by sector 2006/7

	Manufacturing			Construction			Service		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Amputation	329	168	51	100	29	29	189	38	20
Asphyxiation, Poison	31	22	71	5	1	20	89	13	15
Burns	160	47	29	79	12	15	132	21	16
Electricity	9	5	56	16	5	31	11	4	36
Loss of Sight	16	6	38	12	2	17	52	5	10
Multiple	99	34	34	113	24	21	289	33	11

Table 4.10 shows that the disparity in the levels of investigation in London and Scotland (see Table 6) can not be explained by the different kinds of major injuries reported. Whilst in Scotland there were 65 reported amputations with 31 of these (48%) investigated, in London there were 45 reported amputations with only 13 (29%) investigated. And whilst there were 42 multiple injuries in Scotland with 11 being investigated (26%); in London, there were 65 multiple injuries, and only 4 were investigated (6.2%).

Table 4.10: Reported and investigated major injuries to workers, by kind of injury in London and Scotland, 2006/7

	Scotland			London		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Amputation	65	31	48	45	13	29
Asphyxiation, Poison	11	4	36	7	0	0
Burns	38	7	18	29	4	14
Electricity	5	0	-	6	0	0
Loss of Sight	9	2	22	9	1	11
Multiple	42	11	26	65	4	6

Table 4.11 considers amputations of fingers and of toes. In 2001/2 there were 937 amputations of fingers and 510 of these (54%) were investigated. In 2006/7, there were only 626 amputations of fingers but only 227 of these were investigated (36%). In relation to toes, again the *numbers* of amputations has decreased from 22 to 14 in the six year period, but whilst 11 (50%) were investigated in 2001/2, six years later only 4 (29%) were investigated.

Table 4.11: Reported and investigated amputations of fingers and toes, 2001/2 to 2006/7

	2001/2			2003/4			2005/6			2006/7		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Finger	937	510	54	759	357	47	672	207	31	626	227	36
Toe	22	11	50	18	12	67	8	5	63	14	4	29

Table 4.12 shows that the investigation levels into amputations of fingers vary considerably across sectors. In 2006/7, whilst an amputation of a finger in the manufacturing sector had 50% chance of an investigation, in construction it was only 25% and in the service sector it was only 18%

Table 4.12: Reported and investigated amputations of fingers, by sector, 2001/2 to 2006/7

	2001/2			2003/4			2005/6			2006/7		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Manufacturing	575	396	69	409	258	63	325	142	44	316	156	50
Construction	113	22	20	117	28	24	146	26	18	94	23	25
Service	198	50	25	196	44	22	174	21	12	171	30	18

Investigation Levels into Different 'Causes' of Injury

Three tables below set out the levels of investigation by cause of the injury. Table 4.13 shows that the injuries most likely to be investigated were those caused by 'explosions' (50%), 'high falls' (46%), drowning and asphyxiations (43%), 'collapses' (41%) and 'electrocutions' (41%). By contrast, only 27% of injuries caused by 'contact with machinery' and 20% of those caused by fires were investigated.

Table 4.13: Reported and investigated major injuries by cause in 2006/7

	Nos Rep	Nos Inv	% Inv
Explosion	26	13	50
High fall	724	332	46
Drowned/asphyxiated	7	3	43
Collapse	70	29	41
Electricity	90	37	41
Hit by Moving Vehicle	534	188	35
Contact with moving Machinery	1,380	373	27
Fire	50	10	20
Contact with harmful substance	459	90	20
Fall (height not known)	323	59	18
Low Fall	1,982	262	13
Hit by moving/falling Object	2,987	269	9
Injured by Animal	265	22	8
Hit by fixed Object	776	54	7
Handling	3,218	105	3
Slip/Trip	7,930	217	3
Physical Assault	698	9	1
Not Known	62	12	19
Other kind of accident	591	36	6
Blank		200	

Table 4.14 shows that there are significant variations in investigation levels of different injuries (by cause) across different sectors in 2006/7. Whilst 80% of 'collapses' in agriculture and 63% in manufacturing were investigated, only 42% of them in construction and only 29% in the service sector were investigated. Similar variations exist in relation to 'high falls'. Whilst 68% of those in manufacturing and 67% in agriculture were investigated, only 44% in construction and 31% in the service sector were investigated.

Table 4.14: Reported and investigated major injuries by cause, in different sectors in 2006/7

	Service			Agriculture			Construction			Manufacturing		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Collapse	24	7	29	5	4	80	31	13	42	8	5	63
Contact with Moving Machinery	260	49	19	56	20	36	202	25	12	842	271	32
Electricity	25	10	40	2	1	50	40	10	25	15	10	67
Fire	22	3	14	1	0	0	10	3	30	15	3	20
High fall	167	51	31	24	16	67	410	181	44	110	75	68
Hit by Moving Vehicle	301	72	24	19	12	63	89	35	39	120	66	55

Table 4.15 below, further[37] emphasises that the overall differences in investigation levels between Scotland and London cannot be explained by different kinds of injuries being reported. Whilst in Scotland, 47 of 100 'high falls' (47%) and 19 of 55 injuries (35%) caused by 'moving vehicles' were investigated, in London only 13 of 72 'high falls' (18%) and 6 of 51(12%) of injuries caused from 'moving vehicles' were investigated. However, percentages of investigation following injuries caused by 'contact with machinery' were similar.

[37] See Table 10, above

Table 4.15: Reported and investigated injuries by cause in Scotland and London in 2006/7

	Scotland			London		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Collapse	09	04	45	07	02	29
Contact with moving Machinery	138	40	29	72	17	24
Electricity	12	03	25	16	01	6
Explosion	02	02	100	05	01	20
Fire	05		0	05	01	20
High fall	100	47	47	72	13	18
Hit by moving Vehicle	55	19	35	51	06	12

There have been significant variations across the six year period in the levels of decline in the investigation of injuries resulting from different causes. Table 4.16 focuses on those kinds of injuries (by cause) where the fall in investigation levels has been sharpest, as well as the seven *most* investigated injuries in 2006/7. It shows that the decline in investigations has been greatest in handling injuries (77%) but it has also decreased quite significantly in explosions (28%), electricity (25%) and collapses (18%).

Table 16: Reported and investigated major injuries by cause, 2001/2 and 2006/7

	2001/2			2006/7		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Handling	2,333	303	13	3,218	105	3
Fire	43	23	54	50	10	20
Contact with Moving Machinery	1,385	761	55	1,380	373	27
Drowned/Asphyxiated	12	9	75	7	3	43
Explosion	61	42	69	26	13	50
Electricity	116	64	55	90	37	41
High fall	1,126	677	60	724	332	46
Hit by Moving Vehicle	606	273	45	534	188	35
Collapse	137	68	50	70	29	41

CHAPTER FIVE

LEVELS OF INVESTIGATION INTO 'OVER-THREE-DAY' INJURIES

In this Chapter we consider the levels of investigation by the HSE into over-three day injuries to workers which were reported (and were *reportable*) to the Health and Safety Executive in a six year period, 2001/2–2006/7. Over-three day injuries are those injuries which are not defined as a 'major injury' but result in a worker being off work for more than three days. Over-three day injuries are considered to be less serious than 'major injuries.'

They are also even less likely than major injuries to be reported to HSE. As explained in the Introduction, the numbers of over-three day injuries reported to the HSE represent about only 25% of the numbers of injuries that actually take place.

As in Chapter Four, this chapter looks at the numbers and overall percentages of reported over-three day injuries investigated, as well as looking at levels of investigation by industrial sector, by region, by nature of injury (amputation, burn etc) and by cause of injury (fall, explosion etc). It particularly focuses on the most recent year of data – 2006/7.[38]

Overall Trends in Investigation

Table 5.1 demonstrates that although the number of reported over-three day injuries has decreased from 104,513 in 2001/2 to 85,036 in 2006/7, the number of over-three day injuries actually investigated has declined from 4017 to 1011 – a reduction from 3.8% to 1.2% of the total reported.

Table 5.1: Reported and investigated over-three day injuries to workers, 2001/2 to 2006/7

	Nos Rep	Nos Inv	% Inv
2001/2	104,513	4,017	3.8
2002/3	100,427	3,428	3.4
2003/4	101,801	1,935	1.9
2004/5	94,672	1,320	1.4
2005/6	91,292	965	1.1
2006/7	85,036	1,011	1.2

Trends in Investigation by Industrial Sector

Table 5.2 shows that most over-three day injuries take place in the service sector – which also has the lowest level of investigation (0.5%). It is notable, for example, that although there are less than half as many injuries in manufacturing compared to the service sector (21,476 compared to 53,919), the total number of injuries investigated in manufacturing is more than double that of the service sector (517 compared to 248).

Table 5.2: Reported and investigated over-threeday injuries to workers, by sector, 2006/7

	Nos Rep	Nos Inv	% Inv
Agriculture	798	27	3.4
Mining	603	57	9.5
Manufacture	21,476	517	2.4
Construction	7,522	142	1.9
Energy	718	16	2.2
Service	53,919	248	0.5
Unknown		11	

Table 5.3 indicates that the decline in investigation levels has been uneven in the different sectors. The largest decline has taken place in agriculture where the level of investigation has declined by almost almost three-quarters - from 11.8% to 3.4%; in manufacturing, the level

[38] Again, in some tables there is a category of 'unknown'. This is where the HSE excel files did not provide any information on industrial sector or region or other category of information.

declined by two-thirds, from 6.9% to 2.4% and in construction by a half from 4% to 2.2%. In mining, however, the level of investigation has increased.

Table 5.3: Percentages of reported over-three day injuries to workers that were investigated, by sector, 2001/2 to 2006/7

	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7
Agriculture	11.8	10.4	7.3	6.4	1.1	3.4
Mining	6.0	6.8	4.0	4.2	9.5	9.5
Manufacturing	6.9	6.1	3.5	2.6	2.2	2.4
Construction	4.0	3.0	2.1	2.1	1.7	1.9
Energy	2.2	2.5	1.6	0.7	0.8	2.2
Service	1.6	1.6	0.9	0.6	0.4	0.5

Trends in Investigation Levels by Region

Table 5.4 shows how the level of investigation also varies significantly from one part of the country to another – from 3.1% over-three day injuries in Scotland to 0.5% in London. Although Scotland had fewer such injuries than any other region, it investigated more of these than any other region.

Table 5.4: Reported and investigated over-three day injuries to workers, by region, 2001/2 to 2006/7

	Nos Rep	Nos Inv	% Inv
Scotland	7,714	239	3.1
East and South East	16,629	187	1.1
York and North East	13,286	140	1.1
Midland	16,009	161	1.0
Wales and South West	11,755	83	0.7
North West	10,889	77	0.7
London	8,675	45	0.5
Unknown/ other	79	79	

Table 5.5 looks at investigation levels across different sectors in London and Scotland in 2006/7. Whilst there was a very similar number of reported over-three day injuries in the construction sector in both regions - 793 in Scotland and 791 in London - in Scotland 20 (2.5%) were investigated, whereas in London only 5 (0.6%) were investigated. The same kind of divergence exists in relation to manufacturing: in Scotland 113 of the 1612 injuries were investigated (7%); whilst in London only 22 of the 613 injuries were investigated.

Table 5.5: Reported and investigated over-three day Injuries to workers in Scotland and London, by sector, 2006/7

	Scotland			London		
	Rep	Inv	%	Rep	Inv	%
Agriculture	91	05	6	42	-	-
Mining	180	45	25	01	-	-
Manufacturing	1612	113	7	613	22	4
Construction	793	20	3	791	05	0.6
Energy	99	05	5	67	-	-
Service	4873	51	1	6964	18	0.3

Table 5.6 indicates that the decline over the six year period in the level of investigations has taken place in all regions. The greatest fall was in York and North East (4.4% to 1.1%), a fall of 75 %.

Table 5.6: Percentages of over-three day injuries investigated, by region, 2001/2 to 2006/7

	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7
Scotland	7.6	3.4	2.3	2.0	2.6	3.1
East and South East	4.0	3.9	2.5	1.7	1.0	1.1
York and North East	4.4	4.3	1.9	1.2	0.9	1.1
Midland	3.4	3.2	1.6	1.2	0.9	1.0
Wales and South west	3.2	2.8	2.4	1.9	0.9	0.7
North West	3.1	3.5	0.9	1.0	0.6	0.7
London	1.4	1.7	1.3	0.6	0.5	0.5

Trends in Investigation Levels by Kind of Injury

Table 5.7 shows the different levels of investigation by the kind of injury that was caused.

Table 5.7: Reported and investigated over-three day injuries to workers, by kind of injury 2006/7[39]

	Nos Rep	Nos Inv	% Inv
Asphyxiation, Poison	171	20	11.7
Burns	1935	100	5.2
Electricity	143	10	7.0
Loss of sight	2	1	50.0
Multiple Injuries	4992	91	1.8
Concussion	436	15	3.4
Contusion	15280	176	1.2
Fracture	4225	127	3.0
Laceration	8280	139	1.7
Superficial	5402	41	0.8
Sprain	41217	204	0.5
Dislocation	313	6	1.9

We can see, in Table 5.8, that there were some significant differences in whether or not different kinds of over-three day injuries were investigated across different sectors. Whilst 13 of 38 asphyxiations/poisonings (34%) were investigated in the construction sector, only 6 out of 124 were investigated in agriculture (5%). And whilst in construction 10% of burns (71 out of 711) were investigated, only 4% were investigated in the service sector (6 of 164) and 2% were investigated in the agriculture sector (16 of 1006).

Table 5.8: Reported and investigated over-three day injuries to workers, by kind of injury and sector 2006/7

	Manufacturing			Construction			Service			Agriculture		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Asphyxiation, Poison	-	-	-	38	13	34	3	-	-	124	6	5
Burns	23	2	9	711	71	10	164	06	4	1006	16	2
Electricity	2		-	28	6	21	31	1	3	77	3	4
Loss of Sight	-	-	-	-	1	-	-	-	-	2	-	-
Multiple	32	2	6	1034	47	5	410	15	4	3470	22	0.6

Trends in Investigations into Different Causes of Injury

Table 5.9 looks at the level of investigation into different kinds of over-three day injuries by cause. It shows that although many kinds of injuries were investigated at rates above the 2% average for all sectors, no injury was investigated at a rate higher than 25% - including those considered by the HSE to be a priority, like 'high falls', where only 16% were investigated.

Table 5.9: Reported and investigated over-three day injuries to workers, by cause of injury 2006/7

	Nos Rep	Nos Inv	% Inv
Collapse	95	07	7.4
Contact with harmful substance	2138	107	5.0
Contact with moving Machinery	2993	170	5.7
Drowned	12	03	25.0
Electricity	233	20	8.6
Explosion	72	08	11.1
Fall (height not known)	323	08	2.5
Fire	175	14	8.0
Handling	34790	166	0.5
High fall	331	53	16.0
Hit by moving vehicle	1010	51	5.0
Hit by moving object	9211	79	0.9
Hit by fixed object	3624	23	0.6
Injured by Animal	808	02	0.2
Low Fall	2462	60	2.4
Physical Assault	4428	11	0.2

In Table 5.10, we see significant variations between how the seven most investigated injuries (by cause) in 2006/7[40] were treated across different sectors. For example, if we look at 'High Falls' in all the sectors, we find that in the service sector 3 out of 6

[39] This does not include categories of 'Natural Causes', 'other known', 'superficial' and 'blank'.
[40] Drawnings have been excluded because of the low numbers from this analysis.

(50%) were investigated; in the agricultural sector 14 out of 49 (29%) were investigated; in the construction sector, 24 out of 157 (15%) were investigated; and in manufacturing, 6 out of 110 (6%) were investigated.

Table 5.10: Reported and investigated over-three day injuries to workers, by cause of injury and sector 2006/7

	Service			Agriculture			Construction			Manufacturing		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Collapse	3	-	-	19	1	5	26	3	12	43	2	5
Contact with Moving Machinery	68	2	3	2018	140	7	275	5	2	613	22	5
Electricity	2	-	-	48	9	19	60	3	5	110	5	5
Explosion	2	-	-	18	4	22	10	3	30	41	1	2
Fire	8	-	-	54	9	17	22	-	-	91	5	6
High Fall	6	3	50	49	14	29	157	24	15	110	6	6
Hit by Moving Vehicle	11	2	18	273	22	8	68	6	9	648	20	3

CHAPTER SIX

LEVELS OF INVESTIGATION INTO 'DANGEROUS OCCURRENCES'

In this Chapter we consider the levels of investigation by the HSE into 'dangerous occurrences' which were reported (and were *reportable*) to the Health and Safety Executive in a five year period, 2001/2–2005/6.[41]

It is not known what percentage of dangerous occurrences that actually take place are reported to the HSE – however it is likely to be lower than the level of major and over-three day injuries.

The chapter examines the overall percentages of dangerous occurrences investigated, as well as the levels of investigation by industrial sector, by region, and by nature of dangerous occurrence. It particularly focuses on the most recent year of data – 2005/6.[42]

Overall Trends in Investigation

Table 6.1 shows that the level of dangerous occurrences has declined from 29% in 2001/2 to 20% in 2005/6 – though there was a slight increase in the percentages investigated between 2004/5 and 2005/6.

Table 6.1: Reported and investigated dangerous occurrences, 2001/2 to 2005/6

Year	Nos rep	Nos Inv	% Inv
2001/2	6,246	1,792	28.7
2002/3	5,948	1,722	29.0
2003/4	5,660	1,313	23.2
2004/5	5,517	1,102	20.0
2005/6	5,311	1,085	20.4

Trends in Investigation by Industrial Sector

There are significant variations in levels of investigation by sector. Table 6.2 indicates that in 2005/6, whilst 34% of dangerous occurrences in mining were investigated, the level was only 24% in manufacture, 23% in construction 8% in the service sector, and 7% in the energy sector.

Table 6.2: Reported and investigated dangerous occurrences, by sector, 2005/6

	Nos rep	Nos Inv	% Inv
Mining	1305	446	34
Agriculture	33	13	39
Manufacture	1124	266	24
Construction	753	172	23
Service	1531	126	8
Energy	533	36	7
Unknown	32	26	

Table 6.3 shows the decline in investigation levels in the five year period – and its unevenness in different sectors. The largest decline has taken place in the services sector with the levels declining over three times, 30% to 8%; in agriculture, the decline was from 63% to 39%; in manufacturing, it was from 34% to 24% whilst in construction the decline was only 29% to 23%. In mining, however, the level of investigation has increased from 26% to 34%.

[41] Time did not allow us to analyse the data from 2006/7

[42] It should be noted that in some tables there is a category of 'unknown'. This is where the HSE excel files did not provide any information on industrial sector or region or other category of information.

Table 6.3: Percentages of dangerous occurrences investigated by sector, 2001/2 to 2005/6

	2001/2	2002/3	2003/4	2004/5	2005/6
Agriculture	63	51	47	26	39
Mining	26	31	36	31	34
Manufacturing	34	34	27	23	24
Construction	29	25	22	21	23
Energy	11	11	5	5	7
Service	30	30	14	12	8

Trends in Investigation Levels by Region

Table 6.4 demonstrates how the level of investigation also varies significantly from one part of the country to another. In 2006/7, even though Scotland had the highest level of reported occurrences, it also had the highest level of investigation (32%). In every other region the investigation level was less than 22% and in London it was only 6%.

Table 6.4: Reported and investigated dangerous occurrences investigated by region, 2005/6

	Nos Rep	Nos Inv	% Inv
Scotland	1371	441	32
York and North East	666	142	21
Midland	774	142	18
Wales and South west	637	90	14
North West	515	57	11
East and South East	776	77	10
London	370	22	6
Unknown/ other	202	114	

Table 6.5 contrasts Scotland with London in 2005/6. Whilst in Scotland, 35 out of the 82 (43%) dangerous occurrences in the construction sector were investigated, in London only 13 out of the 94 (14%) were investigated. And whilst in Scotland, 12 out of the 52 dangerous occurrences in the energy sector were investigated, in London none of the 55 energy sector dangerous occurrences were investigated.

Table 6.5: Reported and investigated dangerous occurrences in Scotland and London, 2005/6

	Scotland			London		
	Rep	Inv	%	Rep	Inv	%
Agriculture	13	4	31	-	-	-
Mining	890	310	35	-	-	-
Manufacturing	165	64	39	22	4	18
Construction	82	35	43	94	13	14
Energy	52	12	23	55	-	-
Service	169	16	10	199	5	3

Table 6.6 confirms that there has been a decline in the level of investigation in all regions in the six year period - except Scotland, which increased from 25 to 32%. The highest decline was in the East and South East where the decline was from 30% to 10%. There was also significant declines: in London, from 16% to 6%; the North West, from 23% to 11%; Wales and South West, 28% down to 14%; and in York and North East, from 40% to 21%.

Table 6.6: Percentages of dangerous occurrences investigated, by region, 2001/2 to 2006/7

	2001/2	2002/3	2003/4	2004/5	2005/6
Scotland	25	26	31	26	32
York and North East	40	48	37	26	21
Midland	34	28	21	18	18
Wales and South west	28	26	18	16	14
North West	23	26	10	15	11
East and South East	30	27	18	15	10
London	16	16	8	7	6

Investigation Levels into Different Kinds of Dangerous Occurrences

Table 6.7 shows the level of investigation into different kinds of dangerous occurrences in 2005/6. In particular, it shows some very low levels of investigation, including only:
- 7 of 298 releases of biological agents likely to cause human infection or illness;
- 1 of 14 incidences of overturning of a tank resulting in dangerous substance release or fire;
- 1 of 10 fairground failures;
- 17 of 140 failures of breathing apparatus;
- 182 of 1,111 collapses or overturning of machinery etc;
- 7 of 42 scaffold collapses; and
- 24 of 140 floor or wall collapses (under construction)

being investigated.

Table 6.7: Reported and investigated dangerous occurrences in 2005/6, by type

Type of Dangerous Occurrence	Short Description	Nos Rep	Nos Inv	% Inv
The release or escape of a biological agent likely to cause human infection or illness	Release Biological Agent	298	7	2
Overturning or serious damage to a tank while conveying by road prescribed dangerous substances, or the uncontrolled release or fire involving the substance being conveyed	Overturn Dangerous Substance	14	1	7
Incidents in respect of a pipeline or pipeline works	Fail Pipeline	392	33	8
Failure of fairground equipment in use or under test	Fail Fairground	10	1	10
The accidental release or escape of any substance in a quantity sufficient to cause the death, major injury or any other damage to the health of any person	Release Substance	900	104	12
Failure of breathing apparatus in service	Fail Breathing Agent	140	17	12
Failure, collapse or overturning of lifting machinery, excavator, pile driving frame or mobile powered access platform	Fail Vessel	1111	182	16
The failure of any closed vessel including boiler or of any associated pipework, in which the internal pressure was above or below atmospheric pressure	Fail Lift Machinery	238	24	10
Complete or partial collapse of scaffold over 5 m high	Collapse Scaffold	42	7	17
Electrical short circuit which results in the stoppage of the plant for more than 24 hours	Collapse Structure	178	35	20
Collapse or partial collapse of any building or structure under construction involving over 5 tonnes of materials or any floor or wall of a building used as a place of work	Fire/Explosion Electrical	140	24	17
The failure of any freight container in any of its load-bearing parts while it is being raised, lowered or suspended	Fail Freight	10	2	20
The malfunction of radiation generators	Explosion Fire	44	3	7
An explosion or fire occurring in any plant or premises which results in the stoppage of that plant for more than 24 hours	Fail Radiation	201	54	27
Plant/equipment either comes into contact with overhead electric line in which the voltage exceeds 200 volts or causes an electrical discharge	Contact Electricity	80	26	33
Unintentional ignition or explosion of explosives	Explosion/Misfire	53	13	25
The sudden, uncontrolled release of flammable substances	Release Flammable Liquid	290	101	35
Any unintended collision of a train with any other train or vehicle (other than one recorded in part 4 of this table) which caused, or might have caused, the death of or major injury to any person	Train Collision	2	1	50
Incidents in relation to a well (other than a well sunk for the purpose of the abstraction of water)	Fail Well	76	20	26
Failure of any lifting or life-support equipment during a diving operation which puts a diver at risk	Fail Diving	47	19	40
Uncontrolled release/escape of a dangerous substance, or a fire involving the dangerous substance, when being conveyed by road in a vehicle	Release Dangerous Substance	21	13	62

CHAPTER SEVEN

LEVELS OF INVESTIGATION INTO INJURIES TO MEMBERS OF THE PUBLIC

In this Chapter we consider the levels of investigation by the Health and Safety Executive (HSE) into injuries to members of the public reported (and were *reportable*) to the Health and Safety Executive in a six year period, 2001/2–2006/7.

An injury to a member of the public needs to be reported either when the member of the public is taken directly from the site of injury to a hospital, or where there has been a 'major injury' *in* a hospital . The level of under-reporting to the HSE of these injuries is not known.

The chapter examines the overall percentages of reported injuries investigated, as well as looking at levels of investigation by industrial sector, by region, by nature of injury (amputation, burn etc) and by cause of injury (fall, explosion etc). It particularly focuses on the most recent year of data – 2006/7.[43]

Overall Trends in Investigation Levels

Table 7.1 shows that the overall numbers of injuries to members of the public reported in 2001/2 and 2006/7 were very similar. However, the rates of investigation have significantly declined: from 649 to 210, or from 6.2% to 2% of the total reported. Although, the 2006/7 level is a slight increase on the 2005/6 level – the rate of investigation is less than a third of the 2001/02 rate.

Table 7.1: Reported and investigated injuries to members of the public, 2001/2 to 2006/7

	Nos rep	Nos Inv	% Inv
2001/2	10,418	649	6.2
2002/3	8,739	482	5.5
2003/4	8,875	359	4.0
2004/5	9,346	277	3.0
2005/6	11,536	186	1.6
2006/7	10,256	210	2.0

Table 7.2 highlights the fact that most injuries to members of the public take place in the service sector - 9949 out of a total of 10,256. Leaving mining aside (there were just two reported cases of injury), we find that the service sector has the lowest rate of investigation – just 1.6% of reported injuries. If we look at all the other sectors combined we find that 17% of the 307 reported injuries were investigated.

Table 7.2: Reported and investigated injuries to members of the public, by sector, 2006/7

	Nos rep	Nos Inv	% Inv
Construction	186	36	19.4
Manufacture	42	10	23.8
Energy	21	2	9.5
Agriculture	56	5	8.9
Service	9,949	156	1.6
Mining	2	0	0.0
Unknown		1	

[43] It should be noted that in some tables there is a category of 'unknown'. This is where the HSE excel files did not provide any information on industrial sector or region or other category of information.

Table 7.3 shows there has been a decline in the investigations levels of over two thirds over a 6 year period in the service sector, from 5.1% to 1.6%.

Table 7.3: Percentage of member of the public injuries investigated in the service sector, 2001/2 to 2006/7

	Nos Rep	Nos Inv	% Inv
2001/2	9,794	502	5.1
2006/7	9,949	156	1.6

Trends in Investigation Levels by Region

Table 7.4 demonstrates how the level of investigation again varies significantly from one part of the country to another – with Scotland having the highest rate of investigation (2.8%) and London having the lowest (1.2%). As we can see from Table 7.5, the rates of investigation of reported injuries to the members of the public have declined across the six year period in every region. Although in 2006/7, Scotland had the highest rate of investigation (2.8%) in 2001/2, it investigated a much higher level of injuries to the public (18.5%) in 2001/2; and whilst Wales and South West region investigated the second most number of injuries in 2006/7 (2%), in 2001/2 it was 11.6%.

Table 7.4: Reported and investigated injuries to the public, by region, 2006/7

	Nos Rep	Nos Inv	% Inv
Scotland	931	26	2.8
Midland	2,084	46	2.2
Wales and South west	1,468	30	2.0
North West	1,008	16	1.6
East and South East	2,329	32	1.4
York and North East	1,436	18	1.3
London	997	12	1.2
Unknown	3	22	

Table 7.5: Percentages of injuries to the members of the public investigated, by region, 2001/2 to 2006/7

	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7
Wales and South west	11.6	10.3	7.6	4.7	2.7	2.0
East and South East	7.6	6.2	4.4	2.3	2.4	1.4
London	2.7	4.5	4.8	2.2	0.8	1.2
Midland	6.2	6.6	6.3	4.4	2.0	2.2
York and North East	9.4	8.9	8.5	8.2	0.9	1.3
North West	6.1	13.9	3.7	5.0	2.1	1.6
Scotland	18.5	7.2	5.4	4.9	1.5	2.8

Trends in Investigations into Different 'Kinds' and 'Causes' of Injury

Table 7.6 shows that the type of injury with the highest level of investigation in the service sector (the sector with most reports of member of the public injuries) was amputations where 21% were investigated. Table 7.7 shows that the kind of injury in the Service sector that was most investigated was 'High Falls' at 17%. Some kinds of injuries in the service sector were not investigated at all; none of the 16 members of the public injured by collapses, or of the 19 injured by electricity were investigated.

Table 7.6: Reported and investigated injuries to the members of the public by kind of injury and sector, 2006/7

	Service			All other sectors		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Amputation	29	6	20.7	2	0	0.0
Asphyxiation/Poison	91	4	4.4	4	1	25.0
Burns	160	9	5.6	4	5	125.0
Concussion	144	6	4.2	2	0	0.0
Contusion	1077	9	0.8	31	3	9.7
Dislocation	362	1	0.3	7	0	0.0
Electricity	13	0	0.0	6	1	16.7
Fracture	4312	68	1.6	103	21	20.4
Laceration	1305	18	1.4	52	7	13.5
Loss of Sight	5	0	0.0	0	0	
Multiple	298	12	4.0	32	7	21.9
Sprain	1034	4	0.4	9	3	33.3
Superficial	656	3	0.5	28	0	0.0

Table 7.7: Reported and investigated injuries to the members of the public by cause of injury and sector, 2006/7

	Service			All other sectors		
	Nos Rep	Nos Inv	% Inv	Nos Rep	Nos Inv	% Inv
Collapse	16	-	0.0	2	2	100.0
Contact Substance	335	9	2.7	9	3	33.3
Contact Machinery	114	6	5.3	2	1	50.0
Drowned	10	1	10.0	-	-	
Electricity	19	-	0.0	7	1	14.3
Explosion	11	1	9.1	-	-	
Fall (not known)	114	3	2.6	8	1	12.5
Fire	14	2	14.3	-	-	
Handling	742	9	1.2	11	4	36.4
High Fall	65	11	16.9	11	2	18.2
Hit (moving vehicle)	67	6	9.0	4	-	-
Hit Moving Object	2241	19	0.8	76	10	13.2
Hit fixed	493	5	1.0	20	4	20.0
Animal	56	1	1.8	12	3	25.0
Low Fall	587	18	3.1	21	3	14.3
Slip	3693	22	0.6	111	14	12.6

CHAPTER EIGHT

CONCLUSION

Levels of investigation – of major injuries, over-three day injuries, dangerous occurrences and of injuries to members of the public - documented in the report have all declined significantly in the period under examination, that is from the year 2001/2. What is more, the levels in 2001/2 were themselves very low, with the overwhelming number of incidents in each category not being investigated. The six year declines documented here have in fact come from a baseline of already low investigation levels.

Arguably, such low levels of investigation cause the very system of health and safety enforcement to be undermined, to be seen as having fallen into disrepute. Thus, the low levels of investigation in 2006/7 (2005/6 for dangerous occurrences) should be of great concern to those responsible with ensuring workplace prevention and corporate criminal accountability.

Increasingly, employers are able to cause serious injury or place workers and members of the public at significant risk, through dangerous occurrences, without there being any intervention by a state body either, first, to check whether the employer has taken appropriate measures to ensure workers and the public are no longer at risk or, second, to determine whether or not a criminal offence has been committed. Thus the system of safety enforcement is failing to secure either direct prevention or accountability.

In failing to investigate such high numbers of injuries and dangerous occurrences, the HSE has overseen the virtual institutionalisation of a culture of impunity. Without investigations, no criminal accountability is possible. This must be one of the reasons for the significant declines in prosecution levels over the last six years. And as investigations and prosecutions decline, law is increasingly viewed as irrelevant to the day to day concerns of employers. If it is unwise to posit any direct link between levels of injury and levels of enforcement, it must surely be the case that as protective law is undermined, workplaces are likely to become less, rather than more, safe. And this puts workers and the public at greater risk.

Who is to blame for this cycle of omission, decline and impunity? The HSC/E (now newly merged) must shoulder a significant portion of blame. Whilst it has a difficult job in balancing the time its inspectors should spend on preventative inspections on the one hand and investigation on the other, it has never put forward a demand to government that it needs more money to significantly increase its level of investigation. So while it is commonplace for all organisations to argue for greater resources, it is striking that HSE has refrained from making such claims. HSE/C 's exchanges with the select committees scrutinizing their conduct bears this out.

There is no current evidence to determine whether the HSE would have more preventative impact if it spent time on conducting investigations rather than on conducting inspections. But it is certainly the case that conducting investigations will have far more impact in terms of accountability, and in ensuring that those who cause injury through high levels of negligence are brought to account.

The HSE/C's failure to argue the case for more money for investigations shows they do not see accountability as a high priority. They need to wake up to the fact , that public opinion

will see them as an organisation who cares very little if employers break the law, cause serious injury and are not prosecuted.

The Department for Work and Pensions – as the Government department responsible for the HSC/E - has failed to provide sufficient resources to the HSE so that it can increase the investigation levels without there being a decline in preventative work. Indeed, more generally, it is clear that the Government has set a context for the work of the HSE – both in terms of allocation of resources, and through its wider messages about 'burdens on business' – in which safety at work is increasingly devalued, and seen as an interference with the business of doing business. This cannot be acceptable in a developed economy. It is surely the job of any government to ensure that law is respected and, where there are potential violations of law, that these be investigated in order to ensure that any lessons are learnt and, if necessary, to secure justice.

The recent decision to employ 40 more inspectors is a positive sign – but the employment of such small numbers of inspectors is unlikely to make much of an impact on investigation levels.

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